

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1 – 27 (cancelled).

Claim 28 (currently amended): An apparatus which may be used as a combustion system, said apparatus comprising:

- a) an oxyfuel burner;
- b) a first duct adapted to feed said burner with fuel;
- c) a second duct adapted to feed said burner with an oxidizer comprising oxygen and an additional gas;
- d) an oxygen feeder;
- e) an additional gas feeder, wherein said second duct cooperates with said oxygen feeder and said additional gas feeder;
- f) a flow rate measurement device, wherein said flow rate comprises at least one member selected from the group consisting of:
 - 1) said oxygen's flow rate; and
 - 2) said fuel's flow rate; and
- g) a flow rate control device adapted to control said additional gas's flow rate, wherein said flow rate control device is slaved to said flow rate measurement device so that a sum of the additional gas, oxygen and fuel flow rates are greater than a preset minimum flow rate D_{MIN} , wherein D_{MIN} is the minimum flow rate through the burner required for cooling the burner during combustion so as to prevent structural thermal damage to the burner.

Claim 29 (canceled)

Claim 30 (previously presented): The apparatus of claim 28, wherein said flow rate control device comprises a pressure regulator.

Claim 31 (previously presented): The apparatus of claim 28, wherein said flow rate control device is a servovalve.

Claims 32-33 (canceled)

Claim 34 (previously presented): The apparatus of claim 30, wherein said flow rate control device allows the feeding of the additional gas until a pressure generated by the additional gas and the oxygen fed to the burner is sufficient to achieve a flow rate of oxidizer greater than D_{MIN} , the flow rate of the oxidizer being a sum of the flow rates of the oxygen and the additional gas.

Claim 35 (new previously presented) The apparatus of claim 31, wherein the servovalve controls the feeding of the additional gas by slaving an opening of the additional gas feeder to a control value selected from the group consisting of a flow rate of the oxygen and a flow rate of the fuel, the slaving of the opening to the control value taking into account a fixed oxygen/fuel stoichiometric ratio.

Claim 36 (previously presented): The apparatus of claim 35, wherein the additional gas is air and the slaving of the opening to the control valve takes into account a supply of oxygen from the air in calculating the oxygen/fuel stoichiometric ratio.

Claim 37 (canceled)

Claim 38 (previously presented): The apparatus of claim 28, wherein said flow rate measurement device measures the flow rates of each of the oxygen and the fuel and said flow rate control device adjusts the flow rate of the additional gas so that the sum of the oxygen, additional gas and fuel flow rates is greater than D_{MIN} .